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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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THE DIRECTV GROUP INC
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EXAMINER	
TRAN, NGHI V	

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/010,521	DILLON ET AL.	
	Examiner	Art Unit	
	Nghi V. Tran	2151	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17,18,21-24,26-28,31-34,36,37,47,48,51-54,56,57 and 59-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is in response to the amendment filed on March 02, 2007. Claims 23-24, 27, 33-34, and 54 have been amended. Claims 1-16, 19-20, 25, 29-30, 35, 38-46, 49-50, 55, and 58 have been canceled. Claims 59-61 have been added. Therefore, claims 17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61 are presented for further examination.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61 of the instance application are rejected on the ground of nonstatutory obviousness-type

double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 6,473,793. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitation of claims 17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61 of the instance application is overlapping with the limitation of claims 1-9 of U.S. Patent No. 6,473,793 as following:

U.S. Patent No. 6,473,793	***Instant Application No. 10/010,521***
10. *A throughput controlling apparatus* for use with a system comprising:	1. A gateway for use in a system
a first apparatus configured for coupling to a TCP/IP network,	wherein a first apparatus, said gateway, and
a second apparatus configured for coupling to the TCP/IP network via *a satellite receiver* connected to said second apparatus over the TCP/IP network, and said throughput controlling apparatus,	a second apparatus are in a TCP/IP network, wherein the source apparatus, said gateway, and the second apparatus have different IP addresses, said gateway comprising:
wherein said throughput controlling apparatus is configured for coupling to the TCP/IP network for controlling throughput of the data from said first apparatus to said second apparatus, and	a packet receiving unit that is configured to receive a packet addressed at the IP level from the first apparatus to the second apparatus; and service plan determining unit that is configured to determine a level of service subscribed to by a user of the

	first apparatus;
wherein *said third apparatus automatically* controls the throughput in accordance with bandwidth utilization by a user of second apparatus calculated on a per user basis.	a throttling unit that configured to throttle the user of first apparatus by (a) adjust the transport level window size of the packet in accordance with (1) the level of service subscribed to by the user of the first apparatus and (2) bandwidth usage bandwidth usage associated with the user of the first apparatus, and (b) send the so adjusted packet to the second apparatus,
	wherein the packet received by said packet receiving unit has, as its source IP address, the IP address of the first apparatus, and has, as its destination IP address, the IP address of the second apparatus.

4. Therefore, the limitation of claims 17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61of the instance application is anticipated by the limitations of claims 1-15 of U.S. Patent No 6,473,793, and as such is unpatentable for obvious-type double patenting.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 17-18, 21, 23, 26-28, 31, 33, 37, 47-48, 51, 53, and 56-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahne et al., United States Patent Number 5,163,046 (hereinafter Hahne), in view of Koperda et al., United States Patent Number 7,028,088 (hereinafter Koperda).

7. With respect to claims 17, 23, 27, 33, 47, and 53, Hahne teaches a gateway [= switching node **114**] for use in a system [fig.1] wherein a first apparatus [= source **102**], said gateway, and a second apparatus [= destination **128**] are coupled to a TCP/IP network [= cell network **100**], wherein the source apparatus, said gateway, and the second apparatus have different IP addresses [fig.1], said gateway comprising:

- a packet receiving unit [= receiver **202** and/or receiver **414**] that is configured to receive a packet addressed at the IP level from the first apparatus to the second apparatus [figs.1-2 and 4]; and
- a throttling unit [= controller **212** and/or controller **410**] that is configured to throttle the user of the first apparatus by (a) adjusting the transport level window size [= window size changes, fig.4] of the packet in accordance with

bandwidth usage associated with the user of the first apparatus [= resizing window is initiated by an input router, see abstract], and (b) sending the adjusted packet to the second apparatus [= forwarding and/or transmitting window_size, see figs.6-12];

- wherein the packet received by said packet receiving unit has, as its source IP address, the IP address of the first apparatus, and has, as its destination IP address, the IP address of the second apparatus [figs. 1&4].

However, Hahne does not explicitly show a service plan determining unit that is configured to determine a level of service subscribed to by a user of the first apparatus and adjusting bandwidth in accordance with level of service subscribed to by the user of the first apparatus.

In a communication system, Koperda suggests or discloses a service plan [= plurality of levels of service] determining unit that is configured to determine a level of service subscribed to by a user of the first apparatus and adjusting bandwidth in accordance with level of service subscribed to by the user of the first apparatus [see abstract and col. 3, ll.66 through col. 4, ll. 60].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Hahne in view of Koperda by adjusting bandwidth in accordance with level of service subscribed to by the user of the first apparatus because this feature can be defined by parameters including at least a maximum or peak bit rate or bandwidth for providing services over a shared channel [Koperda, see abstract]. It is for this reason that one of ordinary skill in the art at the

time of the invention would have been motivated in order to ensure level of service criteria [Koperda, col. 5, ll. 38-52].

8. With respect to claims 18, 28, and 48, Hahne further teaches wherein the bandwidth usage is measured as an amount of data per unit of time [col. 18, ll. 3-21 and col. 20, ll. 8-20].

9. With respect to claims 21, 31, and 51, Hahne further teaches wherein the bandwidth usage is expressed as an average throughput [= the average of the network bandwidth, see col. 2, ll. 34-47].

10. With respect to claims 26 and 56, Hahne further teaches wherein said throttling unit compare bandwidth usage to a threshold [= threshold **506**, fig.5].

11. With respect to claims 37 and 57, Hahne further teaches wherein said transport level window size is the TCP window size field of the packet [see abstract and fig.1].

12. Claims 22, 32, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahne in view of Koperda, as applied to claims 17, 27, and 47 above, and further in view of Guha, U.S. Patent No. 5,699,369.

13. With respect to claims 22, 32, and 52, Hahne does not explicitly show wherein the bandwidth usage is determined using a leaky bucket analysis.

In a communication system, Guha discloses the bandwidth usage is determined using a leaky bucket analysis [col.13, lns.6-16].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Hahne in view of Koperda, and further in view of Guha by using a leaky bucket analysis because this feature avoids congestion [Guha, col.13, ln.6]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to allow sources to shape the traffic [Guha, col.13, lns.13-14].

14. Claims 24, 34, 36, 54, and 59-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahne in view Koperda, and further in view of Guha.

15. With respect to claims 24, 34, 54, and 59-61, Hahne teaches a gateway [= switching node **114**] for use in a system [fig.1] wherein a first apparatus [= source **102**], said gateway, and a second apparatus [= destination **128**] are coupled to a TCP/IP network [= cell network **100**], wherein the source apparatus, said gateway, and the second apparatus have different IP addresses [fig.1], said gateway comprising:

- a packet receiving unit [= receiver **202** and/or receiver **414**] that is configured to receive a packet addressed at the IP level from the first apparatus to the second apparatus [figs.1-2 and 4]; and

- a throttling unit [= controller **212** and/or controller **410**] that is configured to throttle the user of the first apparatus by (a) adjusting the transport level window size [= window size changes, fig.4] of the packet in accordance with bandwidth usage associated with the user of the first apparatus [= resizing window is initiated by an input router, see abstract], and (b) sending the adjusted packet to the second apparatus [= forwarding and/or transmitting window_size, see figs.6-12];
- wherein the packet received by said packet receiving unit has, as its source IP address, the IP address of the first apparatus, and has, as its destination IP address, the IP address of the second apparatus [figs. 1&4].

However, Hahne does not explicitly show a service plan determining unit that is configured to determine a level of service subscribed to by a user of the first apparatus and adjusting bandwidth in accordance with level of service subscribed to by the user of the first apparatus.

In a communication system, Koperda suggests or discloses a service plan [= plurality of levels of service] determining unit that is configured to determine a level of service subscribed to by a user of the first apparatus and adjusting bandwidth in accordance with level of service subscribed to by the user of the first apparatus [see abstract and col. 3, ll.66 through col. 4, ll. 60].

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Hahne in view of Koperda by adjusting bandwidth in accordance with level of service subscribed to by the user of the first

apparatus because this feature can be defined by parameters including at least a maximum or peak bit rate or bandwidth for providing services over a shared channel [Koperda, see abstract]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to ensure level of service criteria [Koperda, col. 5, ll. 38-52].

Further, Hahne in view of Koperda does not explicitly show wherein the bandwidth usage is determined using a leaky bucket analysis.

In a communication system, Guha discloses the bandwidth usage is determined using a leaky bucket analysis [col.13, lns.6-16].

Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Hahne in view of Koperda, and further in view of Guha by using a leaky bucket analysis because this feature avoids congestion [Guha, col.13, ln.6]. It is for this reason that one of ordinary skill in the art at the time of the invention would have been motivated in order to allow sources to shape the traffic [Guha, col.13, lns.13-14].

16. With respect to claim 36, Hahne further teaches wherein said throttling unit compare bandwidth usage to a threshold [= threshold **506**, fig.5].

Response to Arguments

17. Applicant's arguments, filed March 02, 2007, with respect to claims 117-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61 have been fully considered and

are persuasive. The previous rejection of 17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61, mailed on November 02, 2006, has been withdrawn.

18. Applicant's arguments with respect to claims 17-18, 21-24, 26-28, 31-34, 36-37, 47-48, 51-54, 56-57, and 59-61 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi V. Tran whose telephone number is (571) 272-4067. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung can be reached on (571) 272-3939. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nghi Tran

ZARNI MAUNG
SUPERVISORY PATENT EXAMINER